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## Publications List

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National Bureau of Standards

Office of Standard Reference Data

Washington, D. C. 20001 National Standard Reference Data System



# National Standard Reference System Publications List

The NSRDS is a nation-wide program to provide to the U.S. technical community optimum access to the quantitative data of physical science, critically evaluated and compiled for convenience. It was established in 1963 by action of the President's Office of Science and Technology. Responsibility for administering this effort was given to the National Bureau of Standards. The Office of Standard Reference Data was set up as the management vehicle. Congress endorsed and strengthened the program in 1968 by passing the National Standard Reference Data Act.

The technical scope of the NSRDS is indicated by the principal categories of data compilation projects now active or being planned: nuclear properties, atomic and molecular properties, thermodynamic and transport properties, solid state properties, chemical kinetics, colloid and surface properties and mechanical properties.

The NBS-NSRDS series of publications are intended primarily to include evaluated reference data and critical reviews of long-term interest to the scientific and technical community.

#### Publications Issued in the NSRDS Series

NBS-NSRDS-1, (C13.48:1) National Standard Reference Data System—Plan of Operation, by E. L. Brady and M. B. Wallenstein, 1964 (15 cents).

NBS-NSRDS-2, (C13.48:2) Thermal Properties of Aqueous Uni-univalent Electrolytes, by V. B. Parker, 1965 (45 cents).

NBS-NSRDS-3, Sec. 1, (C13.48:3/Sec. 1) Selected Tables of Atomic Spectra, Atomic Energy Levels and Multiplet Tables, Si II, Si III, Si IV, by C. E. Moore, 1965 (35 cents).

NBS-NSRDS-3, Sec. 2, (C13.48:3/Sec. 2) Selected Tables of Atomic Spectra, Atomic Energy Levels and Multiplet Tables, Si I, by C. E. Moore, 1967 (20 cents).

NBS-NSRDS-3, Sec. 3, (C13.48:3/Sec. 3) Selected Tables of Atomic Spectra, Atomic Energy Levels and Multiplet Tables, C I, C II, C III, C IV, C v, C vI, by C. E. Moore, 1970 (\$1).

NBS-NSRDS-3, Sec. 4, (C13.48:3/Sec. 4) Selected Tables of Atomic Spectra, Atomic Energy Levels and Multiplet Tables, N IV, N V, N VI, N VII, by C. E. Moore, 1971 (55 cents).

NBS-NSRDS-4, (C13.48:4/Vol. I) Atomic Transition Probabilities, Vol. I, Hydrogen Through Neon, by W. L. Wiese, M. W. Smith, and B. M. Glennon, 1966 (\$2.50).

NBS-NSRDS-5, (C13.48:5) The Band Spectrum of Carbon Monoxide, by P. H. Krupenie, 1966 (70 cents).

NBS-NSRDS-6, (C13.48:6/Pt. 1) Tables of Molecular Vibrational Frequencies, Part 1, by T. Shimanouchi, 1967. Superseded by NBS-NSRDS 39.

NBS-NSRDS-7, (C13.48:7/Pt. 1) High Temperature Properties and Decomposition of Inorganic Salts, Part 1. Sulfates, by K. H. Stern and E. L. Weise, 1966 (35 cents).

NBS-NSRDS-8, (PB189698) Thermal Conductivity of Selected Materials, by R. W. Powell, C. Y. Ho, and P. E. Liley, 1966 (\$3).

NBS-NSRDS-9, (C13.48:9) **Tables of Bimolecular Gas Reactions**, by A. F. Trotman-Dickenson and G. S. Milne, 1967 (\$2).

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NBS-NSRDS-10, (C13.48:10) Selected Values of Electric Dipole Moments for Molecules in the Gas Phase, by R. D. Nelson, Jr., D. R. Lide, Jr., and A. A. Maryott, 1967 (40 cents).

NBS-NSRDS-11, (C13.48:11/Pt. 2) Tables of Molecular Vibrational Frequencies, Part 2, by T. Shimanouchi, 1967. Superseded by NBS-

NSRDS 39.

NBS-NSRDS-12, (C13.48:12) Tables, for the Rigid Asymmetric Rotor: Transformation Coefficients From Symmetric to Asymmetric Bases and Expectation Values of  $P_z^2$ ,  $P_z^4$ , and  $P_z^6$ , by R. H. Schwendeman, 1968 (60 cents).

NBS-NSRDS-13, (C13.48:13) Hydrogenation of Ethylene on Metallic Catalysts, by J. Horiuti

and K. Miyahara, 1968 (\$1).

NBS-NSRDS-14, (C13.48:14) X-Ray Wavelengths and X-Ray Atomic Energy Levels, by J. A.

Bearden, 1967 (40 cents).

NBS-NSRDS-15, (C13.48:15/Vol. 1) Molten Salts: Vol. 1, Electrical Conductance, Density, and Viscosity Data, by G. J. Janz, F. W. Dampier, G. R. Lakshminarayanan, P. K. Lorenz, and R. P. T. Tomkins, 1968 (\$3).

NBS-NSRDS-16, (C13.48:16/Pt. 2) Thermal Conductivity of Selected Materials, Part 2, by C. Y. Ho, R. W. Powell, and P. E. Liley, 1968 (\$2).

NBS-NSRDS-17, (C13.48:17/Pt. 3) Tables of Molecular Vibrational Frequencies, Part 3, by T. Shimanouchi, 1968. Superseded by NBS-NSRDS 39.

NBS-NSRDS-18, (C13.48:18) Critical Analysis of the Heat-Capacity Data of the Literature and Evaluation of Thermodynamic Properties of Copper, Silver, and Gold from 0 to 300°K, by G. T. Furukawa, W. G. Saba, and M. L. Reilly, 1968 (40 cents).

NBS-NSRDS-19, (C13.48:19) Thermodynamic Properties of Ammonia as an Ideal Gas, by L.

Haar, 1968 (20 cents).

NBS-NSRDS-20, (C13.48:20) Gas Phase Reaction Kinetics of Neutral Oxygen Species, by H. S. Johnston, 1968 (45 cents).

NBS-NSRDS-21, (C13.48:21) Kinetic Data on Gas Phase Unimolecular Reactions, by S. W. Benson and H. E. O'Neal, 1970 (\$7).

NBS-NSRDS-22, (C13.48:22/Vol. II) Atomic Transition Probabilities, Vol. II, Sodium Through Calcium, by W. L. Wiese, M. W. Smith, and B. M. Miles, 1969 (\$4.50).

NBS-NSRDS-23, (C13.48:23) Partial Grotrian Diagrams of Astrophysical Interest, by C. E. Moore and P. W. Merrill, 1968 (55 cents).

NBS-NSRDS-24 (C13.48:24) Theoretical Mean Activity Coefficients of Strong Electrolytes in Aqueous Solutions from 0 to 100°C, by Walter J. Hamer, 1968 (\$4.25).

NBS-NSRDS-25, (C13.48:25) **Electron Impact Excitation of Atoms,** by B. L. Moiseiwitsch and S. J. Smith, 1968 (\$2).

NBS-NSRDS-26, (C13.48:26) Ionization Potentials, Appearance Potentials, and Heats of Formation of Gaseous Positive Ions, by J. L. Franklin, J. G. Dillard, H. M. Rosenstock, J. T. Herron, K. Draxl, and F. H. Field, 1969 (\$4).

NBS-NSRDS-27, (C13.48:27) Thermodynamic Properties of Argon From the Triple Point to 300 K at Pressures to 1000 Atmospheres, by A. L. Gosman, R. D. McCarty, and J. G. Hust, 1969 (\$1.25).

NBS-NSRDS-28, (C13.48:28 / Vol. 2) Molten Salts: Vol. 2, Section 1. Electrochemistry of Molten Salts: Gibbs Free Energies and Excess Free Energies From Equilibrium-Type Cells, by G. J. Janz and Chr. G. M. Dijkhuis; Section 2. Surface Tension Data, by G. J. Janz, G. R. Lakshminarayanan, R. P. T. Tomkins, and J. Wong, 1969 (\$2.75).

NBS-NSRDS-29, (C13.48:29) Photon Cross Sections, Attenuation Coefficients, and Energy Absorption Coefficients From 10 keV to 100 GeV, by J. H. Hubbell, 1969 (75 cents).

NBS-NSRDS-30, (C13.48:30/Pt. 2) High Temperature Properties and Decomposition of Inorganic Salts, Part 2. Carbonates, by K. H. Stern and E. L. Weise, 1969 (45 cents).

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NBS-NSRDS-32, (C13.48:32) Phase Behavior in Binary and Multicomponent Systems at Elevated Pressures: *n*-Pentane and Methane-*n*-Pentane, by V. M. Berry and B. H. Sage, 1970 (70 cents).

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NBS-NSRDS-35, (C13.48:35/Vols. I, II, and III) Atomic Energy Levels as Derived From the Analyses of Optical Spectra. Vol. I, <sup>1</sup>H to <sup>23</sup>V; Vol. II, <sup>24</sup>Cr to <sup>41</sup>Nb; Vol. III, <sup>42</sup>Mo to <sup>57</sup>La, <sup>72</sup>Hf to <sup>89</sup>Ac, by C. E. Moore, 1972 (Vol. I, \$5; Vol. II, \$4.25; Vol. III, \$4.50).

NBS-NSRDS-36, (C13.48:36) Critical Micelle Concentrations of Aqueous Surfactant Systems, by P. Mukerjee and K. J. Mysels, 1971 (\$3.75).

NBS-NSRDS-37, (C13.48:37) JANAF Thermochemical Tables, 2d Edition, by D. R. Stull, H. Prophet, et al., 1971 (\$9.75).

NBS-NSRDS-38, (C13.48:38) Critical Review of Ultraviolet Photoabsorption Cross Sections for Molecules of Astrophysical and Aeronomic Interest, by R. D. Hudson, 1970 (\$1).

NBS-NSRDS-39, (C13.48:39) Tables of Molecular Vibrational Frequencies, Consolidated Volume, by T. Shimanouchi, 1972 (In preparation).

NBS-NSRDS-40, (C13.48:40) A Multiplet Table of Astrophysical Interest, by C. E. Moore, 1972 (In preparation).

McDaniel, E. W., Cermák, V., Dalgarno, A., Ferguson, E. E., and Friedman, L., Ion-Molecule Reactions, published by Wiley-Interscience Series in Atomic and Molecular Collisional Processes, 1970 (\$19.25).

NSRDS-UCRL-20000 YN, A Compilation of YN Reactions, by the Berkeley Particle Data Group, January 1970.

NSRDS-UCRL-20030  $\pi$ N,  $\pi$ N Partial-Wave Amplitudes, by the Berkeley Particle Data Group, February 1970.

NSRDS-UCRL-20000 NN, NN and ND Interactions [above 0.5 GeV/c]-A Compilation, by the Berkeley Particle Data Group, August 1970.

#### Other NBS Compilations of Data

NBS Tech Note 270-3, (C13.46:270-3) Selected Values of Chemical Thermodynamic Properties, Tables for the First Thirty-Four Elements in the Standard Order of Arrangement, by D. D. Wagman, W. H. Evans, V. B. Parker, I. Halow, S. M. Bailey, and R. H. Schumm, 1968 (\$1.25).

NBS Tech Note 270-4, (C13.46:270-4) Selected Values of Chemical Thermodynamic Properties, Tables for Elements 35 Through 53 in the Standard Order of Arrangement, by D. D. Wagman, W. H. Evans, V. B. Parker, I. Halow, S. M. Bailey, and R. H. Schumm, 1969 (\$1.25).

NBS Tech Note 270-5, (C13.46:270-5) Selected Values of Chemical Thermodynamic Properties, Tables for Elements 54 Through 61 in the Standard Order of Arrangement, by D. D. Wagman, W. H. Evans, et al., 1971 (55 cents).

NBS Tech Note 270-6, (C13.46:270-6) Selected Values of Chemical Thermodynamic Properties, Tables for the Alkaline Earth Elements [Elements 92 through 97 in the Standard Order of Arrangement], by V. B. Parker, D. D. Wagman, and W. H. Evans, 1971 (\$1.25).

NBS Tech Note 438, (C13.46:438) Compendium of ab-initio Calculations of Molecular Energies and Properties, by M. Krauss, 1967 (70 cents).

NBS Tech Note 474, (C13.46:474) Critically Evaluated Transition Probabilities for Ba and III, by B. M. Miles and W. L. Wiese, 1969 (30 cents).

NBS Tech Note 482, (C13.46:482) Superconductive Materials and Some of Their Properties, by B. W. Roberts, 1969 (\$1.25).

NBS Tech Note 484, (C13.46:484) A Review of Rate Constants of Selected Reactions of Interest in Re-Entry Flow Fields in the Atmosphere, by M. H. Bortner, 1969 (60 cents).

NBS Monograph 94, (C13.44:94) Thermodynamic and Related Properties of Parahydrogen From the Triple Point to 100°K at Pressures to 340 Atmospheres, by H. M. Roder, L. A. Weber, and R. D. Goodwin, 1965 (75 cents).

NBS Monograph 70, Vol. I, (PB168072) Microwave Spectral Tables, Diatomic Molecules, by P. F. Wacker, M. Mizushima, J. D. Petersen, and J. R. Ballard, 1964 (\$6).

NBS Monograph 70, Vol. II, (PB189714) Microwave Spectral Tables, Line Strengths of Asymmetric Rotors, by P. F. Wacker and M. R. Pratto, 1964 (\$6).

NBS Monograph 70, Vol. III, (C13.44:70/Vol. III) Microwave Spectral Tables, Polyatomic Molecules With Internal Rotation, by P. F. Wacker, M. S. Cord, D. G. Burkhard, J. D. Petersen, and R. F. Kukol, 1969 (\$4.25).

NBS Monograph 70, Vol. IV, (C13.44:70/Vol. IV) Microwave Spectral Tables, Polyatomic Molecules Without Internal Rotation, by M. S. Cord, J. D. Petersen, M. S. Lojko, and R. H. Haas, 1968 (\$5.50).

NBS Monograph 70, Vol. V, (C13.44:70/Vol. V) Microwave Spectral Tables, Spectral Line Listing, by M. S. Cord, M. S. Lojko, and J. D. Petersen, 1968 (\$4.75).

NBS Monograph 115, (C13.44:115) The Calculation of Rotational Energy Levels and Rotational Line Intensities in Diatomic Molecules, by Jon T. Hougen, 1970 (55 cents).

COM-72-10014, Rate Constants of Gas Phase Reactions, by V. N. Kondratiev. Translated by L. Holtschlag and R. Fristrom, 1972 (\$8.50).

### Nondata Publications from NSRDS Related Projects

NBS Misc. Publ. 277, (PB191754) Photonuclear Data Index, prepared by the Photonuclear Data Group, NBS Radiation Physics Division, 1966 (55 cents).

NBS Special Publication 320, (C13.10:320) Bibliography on Atomic Transition Probabilities, Jan. 1916 through June 1969, by B. M. Miles and W. L. Wiese, 1970 (\$1.25).

NBS Misc. Publ. 281, (C13.10:281) Bibliography on Flame Spectroscopy, Analytical Applications, 1800 to 1966, by R. Mavrodineanu, 1967 (\$2).

NBS Misc. Publ. 289, (C13.10:289) Bibliography of Low Energy Electron Collision Cross Section Data, by L. J. Kieffer, 1967 (50 cents).

NBS Tech Note 290, (C13.46:290) Information Handling in the National Standard Reference Data System, by F. L. Alt, 1966 (25 cents).

NBS Tech Note 291, (C13.46:291) A Bibliography on Ion-Molecule Reactions, January 1900 to March 1966, by F. N. Harllee, H. M. Rosenstock, and J. T. Herron, 1966 (30 cents).

NBS Tech Note 444, (TN444) Reform: A General-Purpose Program for Manipulating Formatted Data Files, by Robert C. McClenon and Joseph Hilsenrath, 1968 (\$3).

NBS Tech Note 446, (C13.46:446) PRECISE: A Multiple Precision Version of Omnitab, by Alfred E. Beam and Joseph Hilsenrath, 1968 (55 cents).

NBS Tech Note 448, (C13.46:448) Status Report
—National Standard Reference Data System,
April 1968, E. L. Brady, Editor, 1968 (70 cents).

NBS Tech Note 464, (C13.46:464) The NBS Alloy Data Center: Function, Bibliographic System, Related Data Centers, and Reference Books, by G. C. Carter, L. H. Bennett, J. R. Cuthill, and D. J. Kahan, 1968 (\$1.25).

NBS Tech Note 470, (C13.46:470) Edpac: Utility Programs for Computer-Assisted Editing, Copy-Production, and Data Retrieval, by Carla G. Messina and Joseph Hilsenrath, 1969 (75 cents).

NBS Tech Note 500, (C13.46:500) Edit-Insertion Programs for Automatic Typesetting of Computer Printout, by C. G. Messina and J. Hilsenrath, 1970 (60 cents).

NBS Tech Note 553, (C13.46:553) Critical Evaluation of Data in the Physical Sciences—A Status Report on the National Standard Reference Data System, by David R. Lide, Jr., 1970 (70 cents).

NBS Tech Note 554, (C13.46:554) Annotated Accession List of Data Compilations of the NBS Office of Standard Reference Data, by H. M. Weisman and G. B. Sherwood, 1970 (\$1.50).

NBS Special Publication 306-1, (C13.10:306-1) Bibliography on the Analyses of Optical Atomic Spectra, Section 1 <sup>1</sup>H-<sup>23</sup>V, by Charlotte E. Moore, 1968 (\$1).

NBS Special Publication 306-2, (C13.10:306-2) Bibliography on the Analyses of Optical Atomic Spectra, Section 2 <sup>24</sup>Cr-<sup>41</sup>Nb, by Charlotte E. Moore, 1969 (60 cents).

NBS Special Publication 306-3, (C13.10:306-3) Bibliography on the Analyses of Optical Atomic Spectra, Section 3 <sup>42</sup>Mo-<sup>57</sup>La <sup>72</sup>Hf-<sup>89</sup>Ac, by Charlotte E. Moore, 1969 (50 cents).

NBS Special Publication 306-4, (C13.10:306-4) Bibliography on the Analyses of Optical Atomic Spectra, Section 4 <sup>57</sup>La-<sup>71</sup>Lu <sup>89</sup>Ac-<sup>99</sup>Es, by Charlotte E. Moore, 1969 (55 cents).

NBS Special Publication 320, Supplement I, (C13.10:320/Suppl. I) Bibliography on Atomic Transition Probabilities, July 1969 through June 1971, by J. R. Fuhr and W. L. Wiese, 1971 (65 cents).

NBS Special Publication 322, (C13.10:322)
Photonuclear Data Index, January 1965 through
January 1970, prepared by the Photonuclear
Data Group, 1970 (75 cents). Supersedes NBS
Misc. Publ. 277, Supplement 1.

NBS Special Publication 324, (C13.10:324) The NBS Alloy Data Center: Permuted Materials Index, by G. C. Carter, D. J. Kahan, L. H. Bennett, J. R. Cuthill and R. C. Dobbyn, 1971 (\$7).

NBS Special Publication 349, (C13.10:349) Heavy-Atom Kinetic Isotope Effects, by M. J. Stern and M. Wolfsberg, 1972 (In preparation).

NBS HANDBOOK 101, (C13.11:101) OMNITAB A Computer Program for Statistical and Numerical Analysis, by Joseph Hilsenrath, Guy G. Ziegler, Carla G. Messina, Philip J. Walsh, and Robert J. Herbold, Revised January 1968 (\$3).

Coblentz Society Specifications for Evaluation of Infrared Reference Spectra, by Board of Managers, Coblentz Society, Analytical Chemistry 38, No. 9 (August 1966).

Kieffer, L. J. and Dunn, Gordon H., Electron Impact Ionization Cross-Section Data for Atoms, Atomic Ions, and Diatomic Molecules: I. Experimental Data, Rev. Mod. Phys. 38, No. 1, 1-35 (1966).

Rudge, M. R. H., **Theory of the Ionization of Atoms by Electron Impact**, Rev. Mod. Phys. 40, No. 3, 564-90 (1968).

Coblentz Society Evaluated Infrared Reference Spectra, by the American Society for Testing and Materials' Joint Committee on Atomic and Molecular Physical Data, 1969. Vol. 6, 1000 Spectra (\$225). Vol. 7, 1000 Spectra (\$225). Vol. 8, 1000 Spectra (\$225). Index to Vols. 1-8 (\$40).

#### Publications in the OSRD Bibliography Series

NBS-OSRDB-70-1-V1, (PB191174) High Pressure Bibliography 1900-1968, Vol. I, Section I—Bibliography. Section II—Author Index, by L. Merrill, 1970 (\$7).

NBS-OSRDB-70-1-V2, (PB191175) High Pressure Bibliography 1900-1968, Vol. II—Subject Index, by L. Merrill, 1970 (\$7).

NBS-OSRDB-70-2, (COM-71-00722) The NBS Alloy Data Center: Author Index, by G. C. Carter, D. J. Kahan, L. H. Bennett, J. R. Cuthill, and R. C. Dobbyn, 1970 (\$10).

NBS-OSRDB-70-3, (AD705110) Semiempirical and Approximate Methods for Molecular Calculations—Bibliography and KWIC Index, by G. A. Henderson and S. Frattali, 1969 (\$3).

NBS-OSRDB-70-4, (COM-71-00025) **Bibliography of Photoabsorption Cross Section Data**, by R. D. Hudson and L. J. Kieffer, 1970 (\$4).

NBS-OSRDB-71-1, (COM-71-00248) **Bibliography on Properties of Defect Centers in Alkali Halides**, by S. C. Jain, S. A. Khan, H. K. Sehgal, V. K. Garg, and R. K. Jain, 1971 (\$3).

NBS-OSRDB-71-2, (COM-71-00841) Bibliography of Kinetic Data on Gas Phase Reactions of Nitrogen, Oxygen, and Nitrogen Oxides, by F. Westley, 1971 (\$3).

Publications of the Atomic and Molecular Processes Information Center Oak Ridge National Laboratory Oak Ridge, Tennessee

ORNL-AMPIC-1, Bibliography of Atomic and Molecular Processes for 1963, compiled by the Atomic and Molecular Processes Information Center (July 1965).

ORNL-AMPIC-2, Directory of International Workers in the Field of Atomic and Molecular Collisions, September 1965 (October 1965).

ORNL-AMPIC-3, **Bibliography of Atomic and Molecular Processes for 1964**, compiled by the Atomic and Molecular Processes Information Center (March 1966).

ORNL-AMPIC-6, Bibliography of Atomic and Molecular Processes for July-December 1965, compiled by the Atomic and Molecular Processes Information Center (September 1967).

ORNL-AMPIC-7, Bibliography of Atomic and Molecular Processes for January-June 1966, compiled by the Atomic and Molecular Processes Information Center (October 1967).

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ORNL-AMPIC-11, Bibliography of Atomic and Molecular Processes for January-June 1968, compiled by the Atomic and Molecular Processes Information Center (January 1969).

ORNL-AMPIC-12, Bibliography of Atomic and Molecular Processes for July-December 1968, compiled by the Atomic and Molecular Processes Information Center (June 1969).

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PB189132, Kieffer, L. J., Bibliography of Photoabsorption Cross Section Data, JILA Information Center Report #5, 32 pages (April 1968).

PB189127, Kieffer, L. J., Compilation of Low Energy Electron Collision Cross Section Data, Part I, JILA Information Center Report #6, 95 pages (January 1969). AD695692, Sinnott, George A., Bibliography of Ion-Molecule Reaction Rate Data, JILA Information Center Report #9, 80 pages (August 1969).

AD696467, Kieffer, L. J., Compilation of Low Energy Electron Collision Cross Section Data, Part II, JILA Information Center Report #7, 167 pages (September 1969).

Chamberlain, G. E., and Kieffer, L. J., Bibliography of Low Energy Electron Collision Cross Section Data (1967-1969), JILA Information Center Report #10, 44 pages (February 1970).

Publications of the Radiation Chemistry
Data Center
University of Notre Dame
Notre Dame, Indiana

COO-38-595, Bibliography on Electron Spin Resonance of Radiation Produced Radicals (November 1967).

COO-38-641, Bibliography on the Radiation Chemistry of Aqueous Solutions. I. Amino Acids, November 1968 (Revised, August 1969).

COO-38-642, Bibliography on the Radiation Chemistry of Aqueous Solutions. II. Carbohydrates, December 1968 (Revised, August 1969).

COO-38-643, Bibliography on Radiation Chemistry of Alcohols and Phenols (November 1968).

COO-38-621, Thesaurus for Radiation Chemistry, May 1968 (Revised, August 1969).

COO-38-661, Bibliography on Radiation Chemistry of Alkanes (May 1969).

COM-71-01103, Weekly List of Papers on Radiation Chemistry, Index and Cumulation, Vol. IV, Nos. 1-26, Jan. through June 1971, August 1971 (\$6).

COM-72-10266, Index and Cumulative List of Papers on Radiation Chemistry, Vol. IV. Nos. 27-52, July through December 1971, January 1972 (\$6).

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